EXHIBIT "B"

54. A regenerative counterflow heat exchanger for gaseous media, in particular an air heat exchanger for ventilating rooms in buildings, with a heat exchanger drum receiving in an alternating sequence the flow of the heat-emitting and heat-absorbing gaseous medium, said drum having an open end forming one face side and being rotatably supported in a bearing and having an active surface consisting of a multilayered network, whereby at least one ventilator produces a flow of feed air and one ventilator a flow of exhaust air, characterized in that the heat exchanger drum substantially forms a fixed outer limitation of the device and the bearing is designed as a combination of a mechanical bearing and a magnetic bearing, whereby the magnetic bearing is arranged on the face side of the open end of the heat exchanger drum and whereby the mechanical bearing is designed with a central bearing on which the heat exchanger drum is fixed in a way such that in the mounted condition, its drum axle is substantially capable of executing only tilting movements within a cone, with the tip of the cone being disposed in the central bearing.

55. The regenerative counterflow heat exchanger according to claim 54, characterized in that the central bearing is connected with a stator in a fixed manner.

56. The regenerative counterflow heat exchanger according to claim 55, characterized in that the stator is designed with a stationary ring.

57. The regenerative counterflow heat exchanger according to claim 54, characterized in that the magnetic bearing is formed only with permanent magnets.

58. The regenerative counterflow heat exchanger according to claim 55, characterized in that provision is made for a part magnetic system connected with the rotatable heat exchanger drum, the magnetizing device of said part magnetic system being arranged parallel with the axle of the drum.

59. The regenerative counterflow heat exchanger according to claim 58, characterized in that provision is made for a part magnetic system, the latter being stationary relative to the heat exchanger drum and connected with the stator.

60. The regenerative counterflow heat exchanger according to claim 59, characterized in that the stationary part magnetic system has a diameter slightly smaller than the diameter of the part magnetic system connected with the rotatable heat exchanger drum.

61. The regenerative counterflow heat exchanger according to claim 55, characterized in that the magnetic bearing is formed with a main magnetic bearing in the region of an upper half of the stator, and with an oppositely acting and thus the bearing capacity-reducing second magnetic bearing in the region of a lower half of the stator, said second magnetic bearing complementing the main magnetic bearing.

62. The regenerative counterflow heat exchanger according to claim 54, characterized in that the magnetic bearing at the same time satisfies a sealing function.

63. The regenerative counterflow heat exchanger according to claim 55, characterized in that the central bearing is connected with a cross bar and the latter is connected in a fixed way with two longitudinal bars connected in a fixed way with the stator.

64. The regenerative counterflow heat exchanger according to claim 63, characterized in that the longitudinal bars are connected with the stator in such a way that any inaccuracy in the angular position on an axis disposed perpendicular to the axis of the drum has no influence on the center point of the central bearing.

65. The regenerative counterflow heat exchanger according to claim 63, characterized in that the cross bar and/or the longitudinal bars are components at least partly produced on a turning lathe, or components derived therefrom.

66. The regenerative counterflow heat exchanger according to claim 65, characterized in that the heat exchanger drum has a means for adjusting its axial position, whereby said means is designed in such a way that a loss-causing sealing gap is adjustable between the heat exchanger drum and the stator from the outside.

67. The regenerative counterflow heat exchanger according to claim 54, characterized in that the central bearing is axially displaceable.

68. The regenerative counterflow heat exchanger according to claim 63, characterized in that provision is made for a compensating device for compensating the thermal change in the length particularly of the longitudinal bars, said compensating device being designed in such a way that a change in the outside temperature leads to an axial displacement of the central bearing relative to the cross bar.

69. The regenerative counterflow heat exchanger according to claim 54, characterized in that the heat exchanger drum has a closed face side and that it is axially fixable from said face side.

70. The regenerative counterflow heat exchanger according to claim 54, characterized in that the heat exchanger drum is designed in such a way that it can be pulled off axially without obstruction.

71. The regenerative counterflow heat exchanger according to claim 54, characterized in that the heat exchanger drum can be put into rotation by means of a current of air provided with a twist.

72. The regenerative counterflow heat exchanger according to claim 71, characterized in that the off-flow of an axial ventilator is directly used as the current of air provided with a twist.

73. The regenerative counterflow heat exchanger according to claim 72, characterized in that the axial ventilator blows out parallel with the axis of the drum and that its axis of rotation is arranged spaced from the axis of the drum.

74. The regenerative counterflow heat exchanger according to claim 72 , characterized in that the ventilator is designed as a feed air ventilator.

75. The regenerative counterflow heat exchanger according to claim 54, characterized in that the ventilator are at least partly arranged within an inner space of the drum of the heat exchanger.